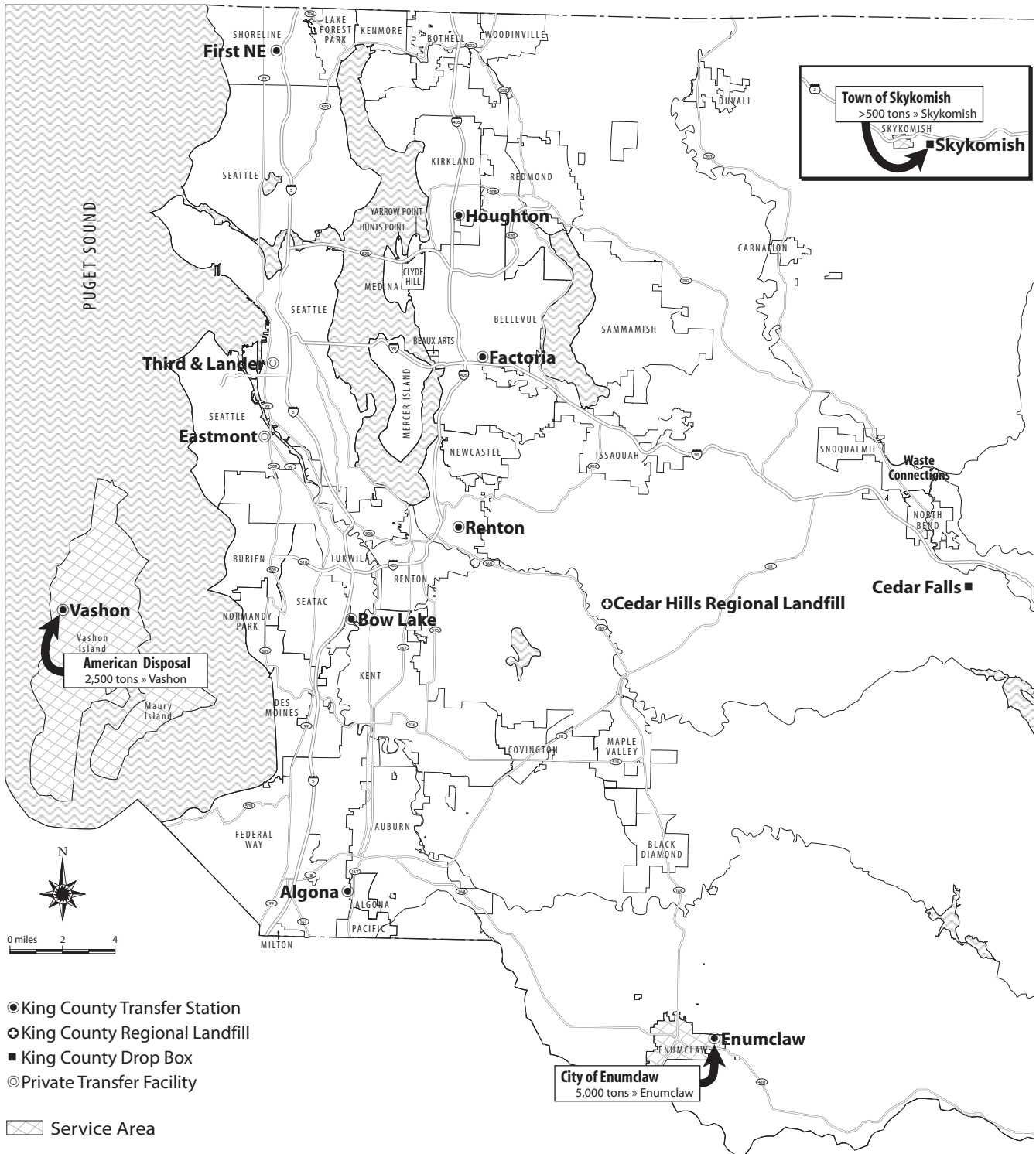


Figure 5-5. Waste Transport by Other Collection Services



1999 Tonnage figures rounded to the nearest 500 tons.
Source: King County disposal data.

During Plan development, citizens and a number of cities expressed a desire to maintain an MMSW collection service that is efficient, keeps collection costs down, and has as little impact as possible on the roadways and traffic. Under their Interlocal Agreements with King County and their contractual agreements with the private collection companies, cities can use their contracting authority to specify which transfer stations the collection companies use. They are currently using their authority to direct MMSW to disposal sites designated in the County's

1992 Comprehensive Solid Waste Management Plan. Further specification in their contract language can ensure that MMSW is taken to the closest transfer station.

Figure 5-6 presents an example of contract language that could be used to direct private collection companies to the closest station. This language is provided as an example of what cities could choose to do.

Figure 5-6. Potential Contract Language

EXAMPLE

Designation of Disposal Site. The Contractor shall deliver, at their cost, all garbage, refuse or other mixed municipal solid waste to the [name of disposal site or sites] that [is/are] part of the regional solid waste management system, as identified in the adopted King County Comprehensive Solid Waste Management Plan and approved by the Department of Ecology. When [this/these] [name of disposal site or sites] are unavailable due to emergency or repair, the Contractor may use other disposal sites that must be a part of the regional solid waste management system. Use of these sites shall be limited to the duration of the emergency or repair period. In no circumstance shall the Contractor use any disposal site that the City would be prohibited from using were the City to collect and dispose of garbage, refuse or other mixed municipal solid waste with its own employees and equipment.

The Contractor shall notify the City of any proposed change to using [name of disposal site or sites] as its designated disposal site(s) at least forty-five (45) days prior to the proposed change taking effect. Such proposal shall include the name or names of disposal sites within the regional solid waste management system to be used, a statement of the reason for the change in disposal sites, and an estimate of the impact of the change on monthly collection costs to households and businesses within the City. The City shall either approve or deny the Contractor's proposal within forty-five (45) days of its receipt, and shall base its decision on a review of the information provided by the Contractor and the adopted King County Comprehensive Solid Waste Management Plan.

Source: This language builds upon language in existing municipal solid waste collection contracts in the state, obtained through the Municipal Research and Services Center. This language is provided as example only and should be reviewed by the appropriate legal counsel before use.



Demand Management at Transfer Stations

Residential and non-residential customers who choose to bring their MMSW or primary recyclables to the transfer stations themselves are referred to as self haulers (discussed in more detail in Chapter 3). The two main types of self haulers are those that have curbside collection but haul occasionally when they have extra wastes or large, bulky items (including small business self-haulers such as remodelers and landscapers), and those that do not subscribe to curbside collection and haul their household garbage and recycling to the transfer stations regularly. Tonnage and transaction

records compiled by the County for 2000 indicate that 88 percent of the vehicle transactions at County transfer stations were with self haulers, collectively carrying 26 percent of the overall tons of waste received.

The challenge with managing self-haul traffic is to balance the needs of the self haulers with those of the private collection company vehicles that bring in most of the waste. High volumes of self-hauling activity can cause heavy traffic and congestion at the County transfer stations. This congestion can cause delays in service for the private collection vehicles that are hauling larger loads. It also increases capital costs for transfer station upgrades, as more vehicle queuing capacity is needed.

Any recommendations for managing self-haul traffic must consider potential negative impacts from changes in service at the transfer stations, such as increases in illegal dumping. For this reason, no changes will be recommended until alternatives are identified for maintaining a high level of service both at the curb and at the transfer stations (discussed in greater detail in Chapter 6).

Several alternatives were considered for managing self-haul activity through changes or enhancements in collection services. The recommended alternatives are to encourage subscription to curbside collection and to manage the need for occasional self hauling by improving pick-up service for bulky and extra wastes. Another alternative evaluated was to implement mandatory curbside collection of MMSW. It is not recommended at this time because of the lengthy regulatory process required, the lack of public and political support, the limited effect it would have on self-haul traffic, and its unavailability or inconvenience to many rural area self-haul customers. The County does, however, intend to continue to monitor its potential advantages and disadvantages in the future.



Subscriptions to Curbside Collection

One way to manage self-haul traffic is to maximize customer subscriptions to curbside collection. In nearly all cases, curbside collection is the most efficient way to provide waste disposal services for households. Several methods will be used over the next few years to try to increase subscription levels. Mailings will be sent out in areas with low subscription levels to tell customers how to sign up, how self hauling may be costing them more, and what kinds of construction projects are coming up at the transfer stations that will make service reductions necessary for periods of time. Incentives will be offered for new subscribers who sign up for a year. These methods will be evaluated for cost effectiveness and adjusted accordingly.

Household Statistics on Curbside Subscription and Self Hauling

- 90%** subscribe to curbside garbage collection
- 87%** also have curbside recyclables pick-up
- 68%** never go to a transfer station
- 27%** go to transfer stations, but no more than once every 6 months
- 9%** go to transfer stations at least once a month
- 43%** self-haul transactions at the transfer stations that are from that 9% of frequent self haulers





Pick-up Service for Bulky and Extra Waste

As discussed in Chapter 3, the most common reason that residents self haul is that they have bulky or extra waste to dispose. Bulky waste is large items like old furniture, appliances, and wood waste that will not fit in a standard curbside collection vehicle. Extra waste is waste that can be set out at the curb but will not fit in a residential curbside collection can, either because of size or volume.

Residents who accumulate bulky or extra waste have four basic options. They can haul the waste themselves to a transfer station, they can set the extra waste out at the curb along with their collection can and pay an established fee, they can arrange to have the bulky or extra waste picked up, or they can take their bulky items to special community collection events. Because of the costs involved, most people choose to haul the waste themselves.

Fees for putting extra waste out at the curb vary among cities and areas of the County, ranging from about \$2 to \$4 per extra bag or can. Since bulky waste is too heavy or will not fit in a standard collection vehicle, it requires a scheduled pick-up in a different type of truck. Private collection companies have WUTC-approved rates for bulky waste collection that range from \$28 to \$75 per hour, plus

disposal costs. Customers also have the option to hire a non-regulated service to do clean-up, then take their wastes to the transfer station. Both of these options are currently more costly than the average self-haul transaction charge at a transfer station, which was \$23 in 2000.

To discourage the practice of self hauling bulky and extra wastes would require that collection services be made more affordable and accessible to residents. The County plans to work cooperatively with the cities and private collection companies to identify options for residents to choose from. One option is to work with the cities to schedule more community collection events for bulky and extra wastes, for both recyclable and disposable materials. Another option is to work with the collection companies to establish regularly scheduled routes for bulky waste pick-up that will make the service more efficient and economical to the ratepayer. The County will also help inform residents of the full range of services provided by the private collection companies, including schedules for services and their costs.

To ensure that the interests of the ratepayers, the County, the cities, and the private collection companies are all considered, the Solid Waste Advisory Committee and city solid waste coordinators will be involved in developing recommendations for service improvements.



King County residents must self haul or arrange for pick up and disposal of bulky items such as this couch



Mandatory Curbside Collection of MMSW

Mandatory curbside collection requires that all residents within a defined area sign up and pay for a minimum level of service. It has been suggested that mandatory collection would help significantly to manage the demand for self hauling.

Cities can require mandatory curbside collection of MMSW within their jurisdictions, and fourteen cities in the County have done so. The primary reasons for taking this step are to minimize illegal dumping and littering and to distribute the costs of recycling and solid waste management equitably among all residents. In addition, it is the most efficient way to provide the service because of economies of scale.

To require mandatory collection in an unincorporated area or county-wide, the County would form an MMSW collection district as described in RCW 36.58A. The statute requires the County to hold public hearings on the issue and get approval by the King County Council. The Council could approve a mandatory collection district in all or part of the County if it was deemed in the public interest and necessary for the protection of public health. In that event, the cities could join the district or could pass their own mandatory collection ordinances. The County and the cities would have to coordinate the implementation of these ordinances.

Establishment of collection districts is authorized under this Plan when approved by the Council for the public interest or preservation of public health. At this point, however, it is not recommended county-wide because there is no evidence that it would impact the demand for self-haul service. Survey data from the County's

1999/2000 Comprehensive Waste Stream Characterization and Transfer Station Customer Surveys (Appendix A-2) show that there is no discernable effect on self-hauling traffic in the fourteen cities in the region that have mandatory collection compared with those that do not. The City of Seattle, which has had mandatory collection since 1961, also has data that support the finding that mandatory collection does not significantly affect self-hauler demand.



Eighty-eight percent of transactions at King County transfer stations are with self haulers



Changes in the recycling industry may affect how curbside recyclable materials are picked up and what additional materials may be candidates for recycling in the future.

Currently, there are two common methods for collecting primary recyclable materials. One method is source separated, where the household or business sorts materials into three separate bins for collection. The other method is commingled, where all of the recyclable materials, except for glass and some metals, are collected in one large bin.

The City of Seattle recently signed new contracts that could have an impact on how recyclables are collected in all of King County. Seattle is making collection uniform by converting all areas of the city to a commingled bin system. By converting to commingled collection, Seattle estimates it will be able to reduce transportation costs and increase recycling over time. Instead of having recyclables picked up every week in the northern part of the city and once a month in the southern part, recyclables are now picked up every other week city-wide. Yard waste is also picked up every other week, on opposite weeks from recycling. The cities of Tacoma and Olympia have made similar changes to their collection systems.

Because the same collection companies are serving both the King County service area and the City of Seattle, it is possible the companies may wish to establish a uniform method of collection throughout the entire region. For this reason, the County and the cities have begun looking at commingled collection and its potential implications within our regional system, as well as changes to the frequency of collection.

Another issue is whether additional types of recyclable or reusable materials could be collected at the curb. Additional materials being considered include polycoated paper, aseptic packages (such as juice boxes and other similar containers), textiles, all plastic containers (Numbers 1 through 7), and food wastes for composting. The City of Seattle added to its collection services polycoated paper, aseptic packages, and plastic container Numbers 1 through 5, which include plastic grocery bags and rigid plastic containers, except those made of polystyrene.

Table 5-3 shows the amounts of these additional materials under consideration that are currently disposed in the County's waste stream. Tonnage is calculated from the year 2000 forecast, and percentages are taken from the Solid Waste Division's most current waste characterization study (Cascadia 2000; Appendix A-2).

Table 5-3. Additional Wastes Considered for Collection and Amounts Currently Disposed

Material	Tons	Percent of Overall Waste Stream
Polycoated paper and aseptic packages	3,792	0.4
Textiles	18,012	1.9
All plastic containers (Numbers 1-7)	16,116	1.7
Food waste and compostable paper	202,872	21.4

Food wastes comprise a substantial portion of the MMSW stream. These wastes could be collected separately or perhaps be combined with yard waste. King County and the City of Seattle have conducted several pilot programs to study collection issues, to test composted food waste, to demonstrate on-site food waste composting, and to survey residential customers on their opinions about food waste collection. Chapter 4 provides more detailed discussion on the recycling and composting of food wastes.

The County and the cities will continue to research the benefits of using a commingled collection system, changing the frequency of collection, and adding materials for collection. The implementation of these changes in other areas of the Puget Sound

is being further evaluated to analyze their benefits and costs. If these changes are implemented within our regional system, procedures will be developed to make it easier for cities with collection contracts to make the changes as contracts are renewed.



Special Collection Events

King County and the cities hold special recycling collection events twice a year during which residents can recycle items that are not collected at the curb or in drop box programs, such as tires, refrigerators and other appliances, clothing, furniture, electronics, and scrap metal.

Currently, King County sponsors events for residents in unincorporated areas, and the cities sponsor events for their residents with funding provided by the County through grants. In 2000, King County and the cities held 51 events and collected 3,514 tons of materials from 21,969 vehicles.

The County and the cities will look at more ways to coordinate special collection events, and potentially reduce administrative costs for staging them.



Special collection events provide residents with the opportunity to dispose items that are not accepted at the curbside



Household Hazardous Waste Collection

The Local Hazardous Waste Management Program provides household hazardous waste (HHW) collection throughout King County. The program is sponsored by King County, the City of Seattle, the cities within our regional system, and Public Health – Seattle & King County. The program is guided by the Local Hazardous Waste Management Plan mandated under RCW 70.105 and adopted in March 1998. The City of Seattle operates two HHW collection sites within its city limits, which are open to all King County residents. The County's Household Hazardous Wastemobile also provides services to King County residents, traveling to designated sites or special events to collect HHW.

The Local Hazardous Waste Management Program recently completed a study to look at services currently provided in the region. The study found that services need to be improved in the southern and eastern portions of the County. Recommendations from the study included:

- Implementing a pilot stationary collection service at a transfer station
- Implementing a pilot program to augment current mobile collection services
- Continuing to provide collection through the County's Wastemobile and Seattle HHW collection sites



The King County Wastemobile travels to more than 30 cities each year

The recommended pilot programs will be implemented in 2001 and 2002. During the same period, the City of Seattle will be conducting a pilot program to collect HHW from home-bound residents who are unable to bring the wastes to a collection site themselves. All of these pilot programs will be evaluated under the Local Hazardous Waste Management Program to determine the most effective way to enhance HHW collection services in the region.



Incentive Rates

According to information gathered from the cities, the WUTC, and the private collection companies, collection rates for MMSW vary among the cities and certificated areas (Table 5-4, Figure 5-7). Rates are affected by population size and density, size and type of commercial and industrial sectors, distance to the transfer station, age and size of the collection vehicle fleet, and any administrative program and billing costs added by the cities. Also, services may vary in numerous ways, including location of pick up, whether yard waste is included, and what materials are collected.

Incentive or variable rates can be used to encourage recycling. Residents pay for garbage service based on the size and number of garbage cans they put out on a weekly basis. The more they recycle – in other words the less garbage they put out at the curb – the less they pay. The rates are structured so that each additional can of garbage costs incrementally more. The WUTC is not currently authorized to establish incentive rates; therefore, in unincorporated King County and in cities regulated by the WUTC, incentive rates are not used. In many of the cities with collection contracts, however, incentive rates are used to encourage recycling, and have proven to be effective in reducing disposal.

During the 2000 session, the state legislature considered a bill that would allow the County and cities to establish a structure for incentive rates in the *Final 2001 Comprehensive Solid Waste Management Plan*. If such a bill passes in the future, ordinances establishing this new rate structure would have to be passed within each jurisdiction.

Since incentive rates have proven to be an effective means of encouraging recycling within the City of Seattle and elsewhere, if the new legislation for incentive rates passes, the County, the cities, and the WUTC will work together to develop a framework for structuring and implementing incentive rates.



Alternative Collection Opportunities

An idea gaining support is taking responsibility for the entire life of a product. One way to encourage this practice is to provide a means for collecting products that can be reused or recycled. For example, take-back programs have been started that allow consumers to return products to the store where they purchased them. Programs are in place for the return of leftover latex paint, used motor oil, and nicad batteries. Other programs, sponsored by charitable organizations, have been developed to take back used clothing and household goods. The manufacturers, retailers, charitable organizations, or public/private entities may sponsor these programs.

The County and the cities, in conjunction with regional businesses and manufacturers, are working to increase the number of alternative collection opportunities available in the region. This Plan supports and encourages such product stewardship efforts.

References

Cascadia. 2000. *Waste Monitoring Program: 1999/2000 Comprehensive Waste Stream Characterization and Transfer Station Customer Surveys*. Final Report. Prepared by Cascadia Consulting Group, Inc., for King County Department of Natural Resources, Solid Waste Division, Seattle, WA.

Table 5-4. 2000 Residential Collection Services and Rates Throughout the King County System

Jurisdiction	Form of Collection Regulation	Collection Company	Solid Waste Collection Mandatory	Rate Includes Cost of Recycling	Rate Includes Cost of Yard Waste Collection	COLLECTION RATES		
						Mini-can	One-can	Two-can (64-gal)
Algona	CONT	Sea-Tac (R)	■	■		\$8.27	\$13.14	\$18.59
Auburn	CONT	RST (WM)	■			\$7.74	\$9.36	\$20.69
Beaux Arts	CERT	Eastside (R)		■		\$10.15	\$12.72	\$15.81
Bellevue	CONT	Eastside (R)		■	■	\$7.84	\$14.20	\$19.91
Black Diamond	CERT	Kent-Meridian Disposal (R)		■		\$10.11	\$13.21	\$16.93
Bothell	CONT	Sno-King(WM)	■	■	■	N/A	\$16.53	\$23.66
Burien	CERT	Sea-Tac (R)		■		\$9.72	\$12.69	\$16.94
		Nick Raffo (WM)				\$10.26	\$15.95	\$20.89
Carnation	CONT	Sno-King(WM)	■			N/A	\$17.80	\$35.39
Clyde Hill	CERT	Eastside (R)		■		\$10.15	\$12.72	\$15.81
Covington	CERT	Kent-Meridian Disposal (R)		■		\$10.11	\$13.21	\$16.93
Des Moines	CERT	Sea-Tac (R)		■		\$10.64	\$13.97	\$16.94
Duvall	CERT	Sno-King(WM)	■			\$11.90	\$14.40	\$20.15
Enumclaw	CITY	City of Enumclaw/RST (WM)	■	■		\$10.09	\$16.43	\$23.00
Federal Way	CONT	Federal Way Disposal (WM)		■		\$8.52	\$13.65	\$20.48
Hunts Point	CERT	Eastside (R)		■	■	\$16.06	\$18.63	\$22.52
Issaquah	CONT	Rabanco Connections (R)		■	■	\$5.83	\$9.91	\$20.46
Kenmore	CERT	Eastside (R)		■		\$10.15	\$12.72	\$15.81
Kent	CONT	Kent-Meridian Disposal (R)		■		\$9.45	\$10.98	\$16.50
Kirkland	CONT	Sno-King(WM)	■	■	■	\$18.68/ weekly, unlimited		
Lake Forest Park	CONT	Eastside (R)		■	■	\$9.54	\$16.17	\$22.73
Maple Valley	CERT	Kent-Meridian Disposal (R)		■		\$10.11	\$13.21	\$16.93
Medina	CERT	Eastside (R)	■	■	■	\$16.63	\$19.20	\$23.09

Table 5-4. continued

Jurisdiction	Form of Collection Regulation	Collection Company	Mandatory Solid Waste Collection	Rate Includes Cost of Recycling	Rate Includes Cost of Yard Waste Collection	COLLECTION RATES		
						Mini-can	One-can	Two-can (64 gal)
Mercer Island	CONT	Eastside (R)		■	■	\$9.90	\$16.43	\$25.44
Newcastle	CERT	Rainier (WM)		■		\$11.90	\$15.00	\$21.00
Normandy Park	CERT	Sea-Tac (R)	■	■		\$9.37	\$12.34	\$16.94
North Bend	CONT	Rabanco Connections (R)	■	■		\$10.48	\$13.57	\$27.14
Pacific	CONT	RST (WM)	■			\$6.00	\$13.14	\$26.43
Redmond	CONT	Sno-King(WM)		■	■	\$6.47	\$9.16	\$18.20
Renton	CONT	Rainier (WM)	■	■	■	\$6.10	\$12.80	\$20.35
Sammamish	CERT	Rabanco Connections (R)		■		\$9.60	\$13.73	\$20.10
		Sno-King(WM)		■		\$11.90	\$14.40	\$20.15
SeaTac	CERT	Sea-Tac (R)		■		\$6.30	\$9.27	\$13.83
		Nick Raffo (WM)		■		\$7.94	\$12.12	\$16.91
Shoreline ^a	CONT	Northwest (WM)		■		\$9.73	\$11.25	\$15.53
Skykomish	CITY	Town of Skykomish	■			N/A	\$15.00	\$21.00
Snoqualmie	CONT	Rabanco Connections (R)	■	■		\$10.33	\$13.35	\$26.69
Tukwila ^b	CONT	Sea-Tac (R)		■		\$8.08	\$10.84	\$16.18
Woodinville	CERT	Sno-King(WM)		■		\$11.90	\$14.40	\$20.15
Yarrow Point	CERT	Eastside (R)		■		\$10.15	\$12.72	\$15.81
Unincorporated King County (see Figure 5-7 for locations)								
Service Area 2	CERT	Eastside (R)		■		\$10.15	\$12.72	\$16.61
Service Area 3	CERT	Sno-King(WM)		■		\$11.90	\$14.40	\$20.15
Service Area 4	CERT	Rabanco Connections (R)		■		\$9.60	\$13.73	\$20.88
Service Area 5	CERT	Rainier (WM)		■		\$11.90	\$15.00	\$21.00
		Sea-Tac (R)		■		\$9.72	\$12.69	\$16.94
Service Area 6	CERT	Sea-Tac (R)		■		\$9.72	\$12.69	\$16.94
		Nick Raffo (WM)		■		\$10.26	\$15.95	\$20.84
Service Area 7	CERT	Sea-Tac (R)		■		\$9.72	\$12.69	\$16.94
		RST (WM)		■		\$9.81	\$14.16	\$20.87
Service Area 8	CERT	Kent-Meridian Disposal (R)		■		\$10.11	\$13.21	\$17.83
Vashon Island	CERT	American Disposal (WC)				\$10.85	\$15.22	\$20.88

Key: **CONT**—Contract; **CERT**—Certificate; **CITY**—City; **(WM)**—Waste Management; **(R)**—Rabanco; **(WC)**—Waste Connections; **N/A**—Not Available.

a) City contracted with WM-Northwest in March 2001. b) City contracted with Sea-Tac in May 2001

Source: Telephone surveys conducted by the Solid Waste Division of the cities, WUTC, and private collection companies.
Rates may have changed since this document was published.

Figure 5-7. Unincorporated Service Areas of King County

